

### **AMENDMENTS TO THE CLAIMS**

Please amend claims 1, 3, 5-11 and 13-14, add new claims 48-59 and cancel claims 4 and 23-47 as set forth below.

#### **Listing of Claims**

1. (Currently Amended) A wireless sensor probe comprising:

~~a probe body including a void configured to house a sensor mast, the probe body to be inserted partially~~ for placement into the ground; said probe body having an interior and an exterior;

~~a first gasket positioned on the outside perimeter of the probe body whereby the gasket can improve the stability of the probe body in the ground;~~

~~the sensor mast~~ a sensor member including one or more sensor devices for sensing a soil property surrounding the probe body when the probe body is inserted ~~partially~~ into the ground; and

a top member selectively removable from a top of said probe body;

~~a probe top part for encapsulating the probe body and the sensor mast,~~

~~wherein the sensor mast is inserted into the probe body to form the sensor probe.~~

wherein the sensor member is configured to removably fit within the interior of the probe body; and

wherein the interior of the probe body is selectively enclosable with the top member.

2. (Canceled)

3. (Currently Amended) The wireless sensor probe of claim 1, ~~wherein the gasket comprises a ring~~ further comprising a gasket.
4. (Canceled)
5. (Currently Amended). The wireless sensor probe of claim 1, wherein the sensor ~~member~~ mast further comprises a ~~second gasket on the outside perimeter of the sensor mast for anchoring the sensor mast to the inner perimeter of the probe body and for sealing the space between the sensor mast and the inner perimeter of the probe body~~ a gasket disposed on the sensor member.
6. (Currently Amended) The wireless sensor probe of claim 1, further comprising: a collar situated near a top portion of the probe body, ~~the collar being used to anchor the probe body to the top of the ground when the probe body is inserted into the ground.~~
7. (Currently Amended) The wireless sensor probe of claim 1, wherein the sensor ~~member~~ mast further comprises a battery ~~slot and a PC board for accommodating a processor.~~
8. (Currently Amended) The wireless sensor probe of claim 1, wherein the ~~probe top part~~ top member comprises a transceiver circuit.
9. (Currently Amended) The wireless sensor probe of claim 1, wherein the probe top part connects to the probe body by an arrangement selected from the following: a screw mount, a bayonet type mount and a flange mount. ~~comprises a battery slot and a PC board for accommodating a transceiver circuit and a processor.~~
10. (Currently Amended) The wireless sensor probe of claim 1, wherein the top member ~~probe top part~~ comprises a solar cell panel.

11. (Currently Amended) The wireless sensor probe of claim 1, wherein the top member probe top part comprises ~~an opening for housing~~ a data display.

12. (Original) The wireless sensor probe of claim 11, wherein the data display comprises one of an LED display or an LCD display.

13. (Currently Amended) The wireless sensor probe of claim 1, wherein a shape of the probe body is selected from ~~configured in~~ a round shape, a hexagon shape, a rectangular shape, a triangular shape, and ~~or~~ a cross-beam shape.

14. (Currently Amended) The wireless sensor probe of claim 1, wherein the probe body further comprises one or more raised structures protruding out of the probe body ~~for housing the sensor device~~.

15. (Withdrawn) A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a collar situated near a top portion of the housing, the collar being used to anchor the housing to the top of the ground when the housing is inserted into the ground.

16. (Withdrawn) A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a gasket formed on the outside perimeter of the housing for securing the housing in the ground when the housing is inserted into the ground.

17. (Withdrawn) The wireless sensor probe of claim 15, wherein the gasket comprises an angular structure surrounding the outside perimeter of the housing, the angular structure having a top portion facing the top of the housing, a bottom portion

facing the bottom of the housing and a side portion having tapered width where the width decreases from the top portion to the bottom portion.

18. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing further comprises a battery slot and a PC board for accommodating a processor.

19. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a transceiver circuit, the top portion remaining above the ground when the housing is inserted into the ground.

20. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a solar cell panel.

21. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.

22. (Withdrawn) The wireless sensor probe of claim 15, wherein the housing further comprises one or more raised structures protruding out of the housing for containing the sensor device.

23-47. (Canceled)

48. (New) The wireless sensor probe of claim 1, wherein the sensor member is a sensor mast.

49. (New) The wireless sensor probe of claim 1, wherein the sensor member further comprises sensor components selected from the following group: an air temperature sensor, a relative humidity sensor, a light level sensor, a soil moisture

sensor, a soil temperature sensor, a soil dissolved oxygen sensor, a soil pH sensor, a soil conductivity sensor, and a soil dielectric frequency response sensor.

50. (New) A wireless soil sensor having selectively joinable components, the wireless soil sensor comprising:

a probe body having an opening into an interior of the probe body;

a component mast comprising sensor circuitry; said component mast insertable into the opening into the interior of the probe body; and,

a probe top selectively engagable with the probe body so as to cover the opening into the interior of the probe body.

51. (New) The wireless soil sensor of claim 50, wherein the component mast connects to the probe top.

52. (New) The wireless soil sensor of claim 50 further comprising a plurality of sensor components.

53. (New) The wireless soil sensor of claim 52, wherein at least a portion of the plurality of sensor components are positioned along a length of the probe body.

54. (New) The wireless soil sensor of claim 52, wherein at least a portion of the plurality of sensor components are positioned around a perimeter of the probe body at a first location.

55. (New) The wireless soil sensor of claim 50, wherein the sensor circuitry further comprises sensor components selected from the following group: an air temperature sensor, a relative humidity sensor, a light level sensor, a soil moisture sensor, a soil temperature sensor, a soil dissolved oxygen sensor, a soil pH sensor, a soil conductivity sensor, and a soil dielectric frequency response sensor.

56. (New) The wireless soil sensor of claim 50, wherein the probe top connects to the probe body by an arrangement selected from the following: a screw mount, a bayonet type mount and a flange mount.

57. (New) The wireless soil sensor of claim 50, wherein said component mast further comprises a battery.

58. (New) The wireless soil sensor of claim 50, wherein said top part further comprises a display.

59. (New) The wireless soil sensor of claim 50, wherein said top part further comprises a solar cell.